Brazil

Epidemiological Fact Sheet

on HIV/AIDS and sexually transmitted infections



2000 Update

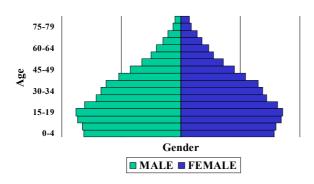






Country Information

Population pyramid, 1999



Indicators	Year	Estimate	Source
Total Population (thousands)	1999	167,998	UNPOP
Population Aged 15-49 (thousands)	1999	93,699	UNPOP
Annual Population Growth	1990-1998	1.4	UNPOP
% of Population Urbanized	1998	78	UNPOP
Average Annual Growth Rate of Urban Population	1990-1998	2.0	UNPOP
GNP Per Capita (US\$)	1997	4,790	World Bank
GNP Per Capita Average Annual Growth Rate	1996-1997	1.9	World Bank
Human Development Index Rank (HDI)	1999	79	UNDP
% Population Economic Active		47.4	ILO
Unemployment Rate	1996	6.9	ILO
Total Adult Literacy Rate	1995	83	UNESCO
Adult Male Literacy Rate	1995	83	UNESCO
Adult Female Literacy Rate	1995	83	UNESCO
Male Secondary School Enrollment Ratio	1996	42.4	UNESCO
Female Secondary School Enrollment Ratio	1996	56.8	UNESCO
Crude Birth Rate (births per 1,000 pop.)	1999	20	UNPOP
Crude Death Rate (deaths per 1,000 pop.)	1999	7	UNPOP
Maternal Mortality Rate (per 100,000 live births)	1990	220	WHO
Life Expectancy at Birth	1998	67	UNPOP
Total Fertility Rate	1998	2.3	UNPOP
Infant Mortality Rate (per 1,000 live births)	1999	41	UNICEF/UNPOP

UNAIDS/WHO Working Group on Global HIV/AIDS and STI Surveillance

Global Surveillance of HIV/AIDS and sexually transmitted infections (STIs) is a joint effort of WHO and UNAIDS. The UNAIDS/WHO Working Group on Global HIV/AIDS and STI Surveillance, initiated in November 1996, guides respective activities. The primary objective of the working group is to strengthen national, regional and global structures and networks for improved monitoring and surveillance of HIV/AIDS and STIs. For this purpose, the working group collaborates closely with national AIDS programmes and a number of national and international experts and institutions. The goal of this collaboration is to compile the best information available and to improve the quality of data needed for informed decisionmaking and planning at national, regional and global levels. The Epidemiological Fact Sheets are one of the products of this close and fruitful collaboration across the globe.

The working group and its partners have established a framework standardizing the collection of data deemed important for a thorough understanding of the current status and trends of the epidemic, as well as patterns of risk and vulnerability in the population. Within this framework, the Fact Sheets collate the most recent country-specific data on HIV/AIDS prevalence and incidence, together with information on behaviours (e.g. casual sex and condom use) which can spur or stem the transmission of HIV.

Not unexpectedly, information on all of the agreed-upon indicators was not available for many countries in 1999. However, these updated Fact Sheets do contain a wealth of information which allows identification of strengths in currently existing programmes and comparisons between countries and regions. The Fact Sheets may also be instrumental in identifying potential partners when planning and implementing improved surveillance systems.

The fact sheets can be only as good as information made available to the UNAIDS/WHO Working Group on Global HIV/AIDS and STI Surveillance. Therefore, the working group would like to encourage all programme managers as well as national and international experts to communicate additional information to the working group whenever such information becomes available. The working group also welcomes any suggestions for additional indicators or information proven to be useful in national or international decision-making and planning.

Contact address:

UNAIDS/WHO Working Group on Global HIV/AIDS and STI Surveillance

20, Avenue Appia CH-1211 Geneva 27 Switzerland

Fax: +41 22 791 4878

email: surveillance@UNAIDS.org http://www.who.ch/emc/diseases/hiv

http://www.unaids.org

Estimated number of people living with HIV/AIDS

In 1999 and during the first quarter of 2000, UNAIDS and WHO worked closely with national governments and research institutions to recalculate current estimates on people living with HIV/AIDS. These calculations are based on the previously published estimates for 1997 and recent trends in HIV/AIDS surveillance in various populations. A methodology developed in collaboration with an international group of experts was used to calculate the new estimates on prevalence and incidence of HIV and AIDS deaths, as well as the number of children infected through mother-to-child transmission of HIV. Different approaches were used to estimate HIV prevalence in countries with low-level, concentrated or generalized epidemics. The current estimates do not claim to be an exact count of infections. Rather, they use a methodology that has thus far proved accurate in producing estimates that give a good indication of the magnitude of the epidemic in individual countries. However, these estimates are constantly being revised as countries improve their surveillance systems and collect more information.

Adults in this report are defined as women and men aged 15 to 49. This age range covers people in their most sexually active years. While the risk of HIV infection obviously continues beyond the age of 50, the vast majority of those who engage in substantial risk behaviours are likely to be infected by this age. The 15 to 49 age range was used as the denominator in calculating adult HIV prevalence.

☐ Estimated number of adults and children living with HIV/AIDS, end of 1999

These estimates include all people with HIV infection, whether or not they have developed symptoms of AIDS, alive at the end of 1999:

Adults and children 540000

Adults (15-49) 530000 Adult rate (%) 0.57

Women (15-49) 130000 Children (0-15) 9900

□ Estimated number of deaths due to AIDS

Estimated number of adults and children who died of AIDS during 1999:

Deaths in 1999 18000

□ Estimated number of orphans

Estimated number of children who have lost their mother or both parents to AIDS (while they were under the age of 15) since the beginning of the epidemic:

Cumulative orphans 41000

Estimated number of children who have lost their mother or both parents to AIDS and who were alive and under age 15 at the end of 1999:

Current living orphans 30828

Assessment of epidemiological situation – Brazil

HIV seroprevalence information among antenatal clinic attendees is available since the late-1980s from Brazil. In terms of reporting, the following areas were considered major urban areas: Belem, Belo Horizonte, Itajai, Para, Porto Alegre, Recife, Rio de Janeiro, Santos, and Sao Paulo. In 1988-89, nearly 4 percent of antenatal women tested in Santos were HIV positive. In 1990, 1 percent of antenatal women in Sao Paulo tested positive for HIV. As more sentinel sites began reporting, the median HIV prevalence rate among antenatal clinic varied around 1 percent of women tested. In 1996, nearly 3 percent of antenatal women tested in Rio de Janeiro tested positive for HIV. Among antenatal women tested, 2 percent of women less than 20 years of age were HIV positive in 1994 and 1995. Peak HIV infection occurs among women aged 20-29 years of age. Among antenatal clinic attendees tested in five sites outside of the major urban centers in 1998, less than 1 percent were HIV positive.

HIV information among sex workers is available since the mid-1980s from the major urban areas of: Belo Horizonte, Campinas, Fortaleza, Rio de Janeiro, Santos and Sao Paulo. HIV infection among sex workers increased from no evidence of HIV infection in Sao Paulo in 1986 to 11 percent in Rio de Janeiro, 1992-93, and 6 percent in Belo Horizonte, 1994. In 1998, 18 percent of sex workers tested in Sao Paulo were HIV positive. Outside of the major urban areas, HIV seroprevalence among sex workers is available from Minas Gerais, Paranagua, and Presidente Prudente. HIV increased from no evidence of HIV infection in 1987 to 5 percent in 1992.

High rates of HIV infection among IV drug users in Brazil have been found since the late 1980s. Fifty percent of IV drug users tested in two sites in Sao Paulo were HIV positive in 1989. Since 1990, a third of all IV drug users tested in major urban areas tested positive for HIV.

Median HIV prevalence among STD clinic patients tested in the major urban centers has ranged from 1 to 5 percent. HIV prevalence among STD patients tested in Rio de Janeiro was 23 percent in 1992 and 1994. Outside of the major urban areas, among STD clinic patients tested in 5 sites in 1998, 3 percent tested positive for HIV.

4 - Brazil

HIV sentinel surveillance

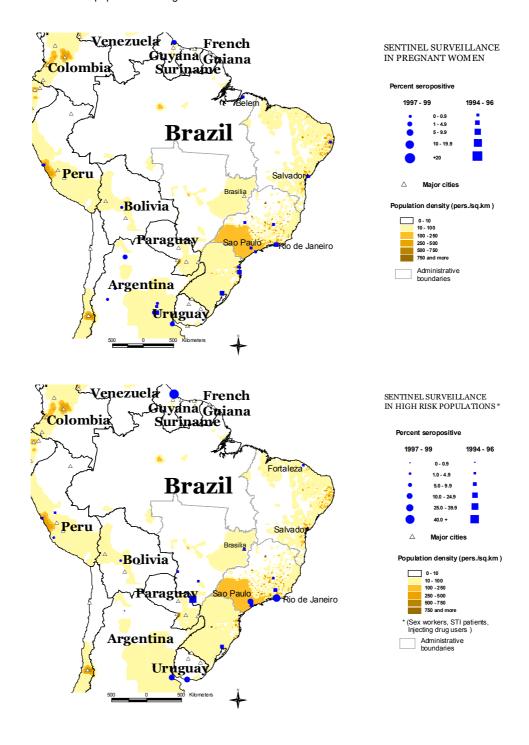
This section contains information about HIV prevalence in different populations. The data reported in the tables below are mainly based on the HIV data base maintained by the United States Bureau of the Census where data from different sources, including national reports, scientific publications and international conferences is compiled. To provide for a simple overview of the current situation and trends over time, summary data are given by population group, geographical area (Major Urban Areas versus Outside Major Urban Areas), and year of survey. Studies conducted in the same year are aggregated and the median prevalence rates (in percentages) are given for each of the categories. The maximum and minimum prevalence rates observed, as well as the total number of surveys/sentinel sites, are provided with the median, to give an overview of the diversity of HIV-prevalence results in a given population within the country. Data by sentinel site or specific study on which the medians were calculated are printed at the end of this fact sheet.

The differentiation between the two geographical areas Major Urban Areas and Outside Major Urban Areas is not based on strict criteria, such as the number of inhabitants. For most countries, Major Urban Areas were considered to be the capital city and – where applicable – other metropolitan areas with similar socio-economic patterns. The term Outside Major Urban Areas considers that most sentinel sites are not located in strictly rural areas, even if they are located in somewhat rural districts.

Group	Area		1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
Pregnant women	Major Urban Areas	N-sites						1	1		5	2	7	5	3		
		Minimum						3.7	1.2		0	0.1	0	0.3	0.6		
		Median						3.7	1.2		0.3	0.2	0.3	0.8	0.7		
		Maximum						3.7	1.2		2.2	0.3	2.6	2.7	2.6		
Pregnant women	Outside Major Urban Areas	N-sites														2	1
·	•	Minimum														0.8	0.4
		Median														0.9	0.4
		Maximum														1	0.4
Group	Area		1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
Sex workers	Major Urban Areas	N-sites			1	2	1	2		3		1	2			1	1
	,	Minimum			0	3	10.8	3		8		11.2	1.6			8.3	17.8
		Median			0	3.75	10.8	3		9.5		11.2	3.95			8.3	17.8
		Maximum			0	4.5	10.8	3		14		11.2	6.3			8.3	17.8
Sex workers	Outside Major Urban Areas	N-sites			Ü	2	10.0	1	1	1-4	1	11.2	0.0			0.0	17.0
Sex Workers	Outside Major Orban Areas	Minimum				0		2	0		4.6						
		Median				0		2	0		4.6						
		Maximum				0		2	0		4.6						
Group	Area	Maximum	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
•	Major Urban Areas	N-sites	1304	1303	1	1907	1900	2		1	3	1555	1334	3	1	1997	1
Injecting drug users	Major Orban Areas	Minimum			4			48.4	1 33	23	31.3			3 14.4	29		28
								50.75	33						29		
		Median			4 4				33	23 23	33			35	29		28
la:aatiaa da.aaa	Outside Maior Unberg Asses	Maximum			4			53.1	33	23	76.5			71.8	29		28
Injecting drug users	Outside Major Urban Areas	N-sites															
		Minimum															
		Median															
Group	Area	Maximum	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
STI patients	Major Urban Areas	N-sites	1964	1985	1986	1967	1900	2	1990	1991	9	10	10	8	3	1997	1998
311 patients	Major Orban Areas			0	0												
		Minimum		0	0			0 0.31	3.4		1.3	1	0 5.05	0.3	1		
		Median							3.4		4.8	2.35		4.26	1.4		
OTI I' I	0.1011.111.1111.1111.1111.1111.1111.1111.1111	Maximum		0	0			0.62	3.4		22.7	15.3	22.7	18	1.9	5	2
STI patients	Outside Major Urban Areas	N-sites															
		Minimum														0.3	1.7
		Median														2.8	2.7
		Maximum									1000					12.8	3.7
Group	Area		1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
Blood Donors	National	N-sites															
		Minimum															
		Median															
		Maximum															
Blood Donors	Major Urban Areas	N-sites							5	5	5	5	5	5	5	4	
		Minimum							0.49	0.87	0.88	0.605	1.24	1.015	0.82	1.2	
		Median							1.79	1.12	1.145	1.525	1.64	1.82	1.87	1.545	
		Maximum							4.07	2.08	2.46	2.07	2.13	2.4	2.29	2.65	
Group	Area		1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
Men having sex with	Major Urban Areas	N-sites															
		Minimum															
men		WIIIIIIIIIII															
men		Median															

Maps of HIV sentinel sites

Mapping the geographical distribution of HIV sentinel sites for different population groups may assist interpreting both the national coverage of the HIV surveillance system and explaining differences in levels and trends of prevalence. The UNAIDS/WHO Working Group on Global HIV/AIDS and STI Surveillance, in collaboration with the UNICEF/WHO HealthMap Programme, has produced maps showing the location and HIV prevalence of HIV sentinel sites in relation to population density, major urban areas and communication routes. Maps illustrate separately the most recent results from HIV sentinel surveillance in pregnant women and in sub-populations at higher risk of HIV infection.



The boundaries and names shown and the designations used on these maps do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted lines on mays represent approximate border lines for which there may not yet be full agreement.

WHO 2000, all rights reserved.

Reported AIDS cases

AIDS cases by year of reporting

1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	Total	Unkn
0	1	0	11	36	132	553	1148	2708	4380	6099	8584	1137	14345	16096	17504	18383	19222	17187	7564		145327	

Date of last report: 30-11-1998

Following WHO and UNAIDS recommendations, AIDS case reporting is carried out in most countries. Data from individual AIDS cases is aggregated at the national level and sent to WHO. However, case reports come from surveillance systems of varying quality. All Reporting rates vary substantially from country to country and low reporting rates are common in developing countries due to weaknesses in the health care and epidemiological systems. In addition, countries use different AIDS case definitions. A main disadvantage of AIDS case reporting is that it only provides information on transmission patterns and levels of infection approximately 5-10 years in the past, limiting its usefulness for monitoring recent HIV infections.

Despite these caveats, AIDS case reporting remains an important advocacy tool and is useful in estimating the burden of HIV-related morbidity as well as for short-term planning of health care services. AIDS case reports also provide information on the demographic and geographic characteristics of the affected population and on the relative importance of the various exposure risks. In some situations, AIDS reports can be used to estimate earlier HIV infection patterns using back-calculation. AIDS case reports and AIDS deaths have been dramatically reduced in industrialized countries with the introduction of HAART (Highly Active Anti-Retroviral Therapy).

AIDS cases by mode of transmission

Hetero: Heterosexual contacts.

Homo/Bi: Homosexual contacts between men.

IDU: Injecting drug use. This transmission category also includes cases in which other high-risk behaviours were reported, in addition

to injection of drugs.

Blood: Blood and blood products.

Perinatal: Vertical transmission during pregnancy, birth or breastfeeding.

NS: Not specified/unknown.

Sex	Trans. Group	<96	1996	1997	1998	1999	Unkn	Total	%
All	Total	10067	1889	1607	4723			14036	100.0
	Hetero	1837	5392	4468	1799			3003	21.4
	Homo/Bi	3488	4265	3272	1123			4354	31.0
	IDU	2160	3557	2650	589			2840	20.2
	Blood	3783	491	295	6			4575	3.3
	Perinatal	2452	666	565	142			3825	2.7
	Other Known	0	0	0	0			0	0.0
	Unknown	1957	4519	4825	1064			2998	21.4
Male	Total	8089	1358	1128	3281			10904	100.0
	Hetero	9762	2633	2156	908			1545	14.2
	Homo/Bi	3488	4265	3272	1123			4354	39.9
	IDU	1754	2880	2163	466			2305	21.1
	Blood	2512	264	169	6			2951	2.7
	Perinatal	1202	324	266	84			1876	1.7
	Other Known	0	0	0	0			0	0.0
	Unknown	1499	3222	3259	694			2216	20.3
Female	Total	1978	5302	4790	1442			3131	100.0
	Hetero	8617	2759	2312	891			1457	46.6
	IDU	4059	677	487	123			5346	17.1
	Blood	1271	227	126	0			1624	5.2
	Perinatal	1250	342	299	58			1949	6.2
	Other Known	0	0	0	0			0	0.0
	Unknown	4585	1297	1566	370			7818	25.0
NS	Total	0	0	0	0			0	
	Hetero	0	0	0	0			0	
	IDU	0	0	0	0			0	
	Blood	0	0	0	0			0	
	Perinatal	0	0	0	0			0	
	Other Known	0	0	0	0			0	
	Unknown	0	0	0	0			0	

Aids cases by age and sex

100674

2639

462

347

2527

11745

25-29 21800

30-34 22054

35-39 15989

644

79

32

263

1677

3782

4494

3301

528

78

45

238

1431

3112

3700

2768

<96 1996 1997 1998 1999 Unkn. Total

142

17

5

76

414

859

1055

846

3953

636

429

3104

15267

29553

31303

22904

2.8

0.5

0.3

2.2

10.9

21.1

22.3

16.3

Age

0-4

5-9

10-14

15-19

20-24

1	40-44	10147	2068	1847	592	14654	10.4
1	45-49	5632	1195	1062	299	8188	5.8
•	50-54	3098	636	584	206	4524	3.2
•	55-59	1801	349	346	102	2598	1.9
1	60+	1764	342	319	101	2526	1.8
;	NS	669	28	17	9	723	0.5
Male	All	80892	13588	11285	3281	109046	100.0
	0-4	1333	318	246	81	1978	1.8
	5-9	290	35	41	10	376	0.3
	10-14	283	21	31	3	338	0.3
	15-19	1866	148	132	39	2185	2.0
	20-24	8803	1018	886	239	10946	10.0
	25-29	17470	2669	2107	567	22813	20.9
	30-34	18225	3382	2759	765	25131	23.0
	35-39	13431	2504	2072	622	18629	17.1
	40-44	8527	1594	1356	427	11904	10.9
	45-49	4713	898	795	218	6624	6.1
	50-54	2498	471	400	150	3519	3.2
	55-59	1468	262	227	78	2035	1.9
	60+	1414	247	224	75	1960	1.8
	NS	571	21	9	7	608	0.6
Female	All	19782	5302	4790	1444	31318	100.0
	0-4	1306	326	282	61	1975	6.3
	5-9	172	44	37	7	260	0.8
	10-14	64	11	14	2	91	0.3
	15-19	661	115	106	37	919	2.9
	20-24	2942	659	545	175	4321	13.8
	25-29	4330	1113	1005	292	6740	21.5
	30-34	3829	1112	941	290	6172	19.7
	35-39	2558	797	696	224	4275	13.7
	40-44	1620	474	491	165	2750	8.8
	45-49	919	297	267	81	1564	5.0
	50-54	600	165	184	58	1007	3.2
	55-59	333	87	119	24	563	1.8
	60+	350	95	95	26	566	1.8
	NS	98	7	8	2	115	0.4
NS	All	0	0	0	0	0	
	0-4	0	0	0	0	0	
	5-9	0	0	0	0	0	
	10-14	0	0	0	0	0	
	15-19	0	0	0	0	0	
	20-24	0	0	0	0	0	
	25-29	0	0	0	0	0	
	30-34	0	0	0	0	0	
	35-39	0	0	0	0	0	
	40-44	0	0	0	0	0	
	45-49	0	0	0	0	0	
	50-54	0	0	0	0	0	
	55-59	0	0	0	0	0	
	60+	0	0	0	0	0	
	NS	0	0	0	0	0	

Curable Sexually Transmitted Infections (STIs)

The predominant mode of transmission of both HIV and other STIs is sexual intercourse. Measures for preventing sexual transmission of HIV and STI are the same, as are the target audiences for interventions. In addition, strong evidence supports several biological mechanisms through which STI facilitate HIV transmission by increasing both HIV infectiousness and HIV susceptibility. Significant also is the observation of a sharp decline in the concentration of HIV in the genital secretions when the infection is treated. Monitoring trends in STI can provide valuable information on the sexual transmission of HIV as well as the impact of behavioural interventions, such as promotion of condom use.

Clinical services offering STI care are an important access point for people at high risk for both AIDS and STI, not only for diagnosis and treatment but also for information and education. Therefore, control and prevention of STI have been recognized as a major strategy in the prevention of HIV infection and

☐ Estimated incid	delice allu p	revalence of curable			
		Incidence		Prevalence	
STIs	Year	Male Female	All Year	Male Female	All
Chlamydia trach.					
Gonorrhoea Syphilis					
Trichomonas					
Comments:					
Source:					
□ STI Incidence.	man				
□ STI Incidence,	men				
Prevention Indicator	9: Proportion	of men aged 15-49 y	ears who reported	episodes of urethritis	in the last 12 months.
	·		·	•	
Year	•	Area	Age	Rate	N=
	•	n of pregnant women a	aged 15-24 years a	ittending antenatal clin	ics whose blood has been
positive serology for	syphilis.			•	
	syphilis.	n of pregnant women a	aged 15-24 years a Age	ittending antenatal clin Rate	ics whose blood has been
positive serology for	syphilis.			•	
positive serology for s	syphilis.			•	
year Comments: Sources:	syphilis.	Area		•	
positive serology for Year Comments:	syphilis.	Area		•	
Comments: Sources: STI Case mana	syphilis.	Area unselled)	Age	Rate	
Comments: Sources: STI Case mana	syphilis. gement (cou	Area unselled) n of people presenting	Age	Rate	N=
Comments: Sources: STI Case mana Prevention Indicator condoms and on part	gement (cou	Area unselled) n of people presenting on.	Age with STI or for STI	Rate care in health facilitie	N= s who received basic advice
Comments: Sources: STI Case mana Prevention Indicator	gement (cou	Area unselled) n of people presenting	Age	Rate	N=
Comments: Sources: STI Case mana Prevention Indicator condoms and on part	gement (cou	Area unselled) n of people presenting on.	Age with STI or for STI	Rate care in health facilitie	N= s who received basic advice
Comments: Sources: STI Case mana Prevention Indicator condoms and on part	gement (cou	Area unselled) n of people presenting on.	Age with STI or for STI	Rate care in health facilitie	N= s who received basic advice
Comments: Sources: STI Case mana Prevention Indicator condoms and on part Year Comments: Sources:	syphilis. gement (cou 7: Proportion ther notificatio	Area unselled) n of people presenting on. Area	Age with STI or for STI	Rate care in health facilitie	N= s who received basic advice
Comments: Sources: STI Case mana Prevention Indicator condoms and on part Year Comments:	syphilis. gement (cou 7: Proportion ther notificatio	Area unselled) n of people presenting on. Area	Age with STI or for STI	Rate care in health facilitie	N= s who received basic advice
Comments: Sources: STI Case mana Prevention Indicator condoms and on part Year Comments: Sources: Comments: Sources:	gement (country) 7: Proportion ther notification.	Area unselled) n of people presenting on. Area	Age with STI or for STI	Rate care in health facilitie Rate	N= s who received basic advice N=
Prevention Indicator Comments: Sources: STI Case mana Prevention Indicator condoms and on part Year Comments: Sources: STI Case mana Prevention Indicator Comments: Sources:	gement (country) To Proportion ther notification gement (treation)	Area unselled) n of people presenting on. Area	Age with STI or for STI	Rate care in health facilitie Rate	N= s who received basic advice
Comments: Sources: STI Case mana Prevention Indicator condoms and on part Year Comments: Sources: Comments: Sources: Sources: Sources:	gement (country) 7: Proportion ther notification. gement (treation) 6: Proportion is standards).	Area unselled) n of people presenting on. Area	Age with STI or for STI	Rate care in health facilitie Rate	N= s who received basic advice N=

Comments Sources:

Health service indicators

HIV prevention strategies depend on the twin efforts of care and support for those living with HIV or AIDS, and targeted prevention for all people at risk or vulnerable to the infection. These efforts may range from reaching out to vulnerable communities through large-scale educational campaigns or interpersonal communication; provision of treatment for STIs; distribution of condoms and needles; creating and enabling environment to reduce risky behaviour; providing access to voluntary testing and counselling; home or institutional care for persons with symptomatic HIV infection; and preventing perinatal transmission and transmission through infected needles or blood in health care settings. It is difficult to capture such a large range of activities with one or just a few indicators. However, a set of well-established health care indicators – such as the percentage of a population with access to health care services; the percentage of women covered by antenatal care; or the percentage of immunized children – may help to identify general strengths and weaknesses of health systems. Specific indicators, such as access to testing and blood screening for HIV, help to measure the capacity of health services to respond to HIV/AIDS – related issues.

□ Access to health care

Indicators	Year	Estimate	Source
% of population with access to health services – total:	1998	100	Ministry of Health
% of population with access to health services – urban:	1998	100	Ministry of Health
% of population with access to health services – rural:	1998	100	Ministry of Health
Contraceptive prevalence rate (%):	1990-1999	77	UNICEF/UNPOP
% of births attended by trained health personnel:	1990-1999	92	UNICEF
% of 1-yr-old children fully immunized – DPT:	1995-1998	94	UNICEF
% of 1-yr-old children fully immunized – Polio:	1995-1998	96	UNICEF
% of 1-yr-old children fully immunized – Measles:	1995-1998	96	UNICEF
Proportion of blood donations tested:		100	
% of ANC clinics where HIV testing is available:			
HIV/AIDS Hospital Occupancy Rate (Days):	1997	12.8	NAP

Male and female condoms are the only technology available that can prevent sexual transmission of HIV and other STIs. Persons exposing themselves to the risk of sexual transmission of HIV should have consistent access to high quality condoms. AIDS Programmes implement activities to increase both availability of and access to condoms. The two condom availability indicators below are intended to highlight areas of strength and weakness at the beginning and end of the distribution system so that programmatic resources can be directed appropriately to problem areas.

Condom availability (central level) Prevention Indicator 2: Availability of condoms in the country over the last 12 months (central level). Year Area N Rate Comments: Sources: Condom availability (peripheral level) Prevention Indicator 3: Proportion of people who can acquire a condom (peripheral level). Year Area N Rate

Comments: Sources:

Knowledge and behaviour

In most countries the HIV epidemic is driven by behaviours (e.g.: multiple sexual partners, intravenous drug use) that expose individuals to the risk of infection. Information on knowledge and on the level and intensity of risk behaviour related to HIV/AIDS is essential in identifying populations most at risk for HIV infection and in better understanding the dynamics of the epidemic. It is also critical information in assessing changes over time as a result of prevention efforts. One of the main goals of the 2nd generation HIV surveillance systems is the promotion of regular behavioural surveys in order to monitor trends in behaviours and target interventions.

☐ Knowledge of HIV- related preventive practices

Prevention Indicator 1: Proportion of people citing at least two acceptable ways of protection from HIV infection.

Year	Area	Age Group	Male	Female	All	
1994	Urban	15-60			68.0	
1996	Urban	16-65			63.0	
1996	Urban		72.0			

Comments:

s: NAP/Playboy/Berquo Cebrap/Brasil – Berquo Cebrap/Brasil

Reported non-regular sexual partnerships

Prevention Indicator 4: Proportion of sexually active people having at least one sex partner other than a regular partner in the last 12 months.

Year	Are	ea Age G	roup Male	Female	All	
1990	All	15-19	76.9	46.4		
1990	All	15-49	51.6	7.5		
1990	All	20-24	62.1	16.9		
1990	All	25-39	42.4	10.5		
1990	All	40-49	31.0	6.3		
1990	All	18-39*	29.0	2.0	16.0	

Comments: Sources:

KABP/Behavioural Studies - GPA, 1993/DEMFAM, 1996

* IBOPE

☐ Reported condom use in risk sex (gen pop)

Prevention Indicator 5: Proportion of people reporting the use of a condom during the most recent intercourse of risk.

Ye	ear	Area	Age Group	Male	Female	All
19	996	All	15-49	30.8	11.4	

Comments:

Sources: BENFAM

Knowledge and behaviour

□ Ever use of condom

Percentage of people who ever used a condom.

	Year	Area	Age Group	Male	Female	All
-	1996	All	15-19		17.3	
	1996	All	20-24		37.5	
	1996	All	25-29		44.4	
	1996	All	30-34		43.1	
	1996	All	35-39		34.2	
	1996	All	40-44		30.2	
	1996	All	45-49		27.8	
	1996	All	Total		33.3	
	1996	All	18*	37.0		
	1996	All	18-39**	25.0	10.0	18.0

Comments:

Sources: Demographic and Health Survey - * Ministry of Health - ** IBOPE

Median age at first sexual experience

Median age of people at which they first had sexual intercourse.

Year	Area	Age Group	Male	Female	All	
1996	All	25-29		18.8		
1996	All	45-49		20.7		
1996	All	<14	38.0	10.0	24.0	
1996	All	15-16	29.0	18.0	24.0	
1996	All	17-19	23.0	39.0	31.0	

Comments: Sources:

: IBOPE

☐ Adolescent pregnancy

Percentage of teenagers 15-19 who are mothers or pregnant with their first child.

Year Area Age Group Rate N

Comments:

Sources:

☐ Proportion of people ever having had sex with same sex

Year Area Age Group Rate N

Comments:

Sources:

□ Reported non-regular sexual partnerships (MSM)

Year Area Age Group Rate N

Comments:

Sources:

Sources

Data presented in this Epidemiological Fact Sheet come from several different sources, including global, regional and country reports, published documents and articles, posters and presentations at international conferences, and estimates produced by UNAIDS, WHO and other United Nations Agencies. This section contains a list of the more relevant sources used for the preparation of the Fact Sheet. Where available, it also lists selected national Web sites where additional information on HIV/AIDS and STI are presented and regularly updated. However, UNAIDS and WHO do not warrant that the information in these sites is complete and correct and shall not be liable whatsoever for any damages incurred as a result of their use.

Aoki, F. H., J. N. Lima, W. B. Abreu, et al., 1989, HIV Infection among Prostitues and Transvestites in Brazil, V International Conference on AIDS, Montreal, 6/4-9, Poster Th.G.P. 3

Andrade-Neto, J. L., 1994, Female Sex Work in Brazil: Risk and Prevalence, Tenth International Conference on AIDS, Yokohama, Japan, 8/7-12, Poster P.C.0358.

Azevedo-Neto, R. S., R. C. Bueno, F. Mesquita, et al., 1996, HIV Seroprevalence in IDUs from Santos: General Trends and Gender Analysis, XI International Conference on AIDS, Vancouver, 7/7-14, Abstract Tu.C.2493.

Bueno, R. C., F. C. Mesquita, H. B. Carvalho, et al., 1993, Multivariate Analysis of the Risk Factors for the HIV Infection in IVDU's in Santo, Brazil, IX International Conference on AIDS, Berlin, 6/6-11, Poster PO-C15-2965

Buchalter, M. S., W. Kruse, L. C. Bochin, et al., 1996, HIV Infection Sentinel Surveillance among Pregnant Women in a Maternity of Porto Alegre, Rio Grande do Sul, Brazil, 1994 - 1995, XI International Conference on AIDS, Vancouver 7/7-14, Poster Tu.C. 2442.

Broutet, N., A. Queiroz Sousa, F. Placido Basilio, et al., 1996, Prevalence of HIV-1, HIV-2 and HTLV Antibody, in Fortaleza, Ceara, Brazil, 1993-1994, International Journal of STD and AIDS, vol. 7, no. 5, pp. 365-369

Broutet, N., T. Queiroz, A. Q. Sousa, et al., 1997, Evolution of the HIV Epidemic in Northeastern Brasil: A Comparative Analysis between Prevalence Data, V Pan-American Conference on AIDS and XI Latin American Congress on STD, Lima. Peru. 12/3-6. Abstract PCJ130.

Brazil Ministry of Health, 1998, Seroprevalence of HIV in Individuals Age 13-24, According to Date of Cross Section, Sex and Type of Sentinel Site ..., Ministry of Health, Brazil, data table.

Cortes, E., R. Detels, D. Aboulafia, et al., 1989, HIV-1, HIV-2 and HTLV-1 Infection in High-Risk Groups in Brazil, New England Journal of Medicine, vol. 320, no. 15, pp. 953-958

Cortes, E., R. Detels, D. Slamon, et al., 1989, Study of HIV-1, HIV-2 and HTLV-1 in Female Prostitutes in Brazil, V International Conference on AIDS, Montreal, 6/4-9, Poster M.G.P. 13.

Cuchi, P., 1998, HIV Seroprevalence Sentinel Study, Brazil, 1997, Internet mail, Wednesday, September 30th, Brazil data tables.

De Macedo-Rodrigues L., P. Chequer, 1989, AIDS in Brazil, 1982-1988, In: AIDS Profile of an Epidemic, Pan American Health Organization, Scientific Publication no. 514, pp. 45-50.

DeLorenzi, A., S. A. Nogueira, V. M. Lessa, et al., 1994, Prevalence of HIV1 among Female Sex Workers in Rio de Janeiro, Tenth International Conference on AIDS, Yokohama, Japan, 8/7-12, Poster P.C.0357.

Dhalia, C. B. C., L. Lauria, L. G. M. Rodrigues, et al., 1996, The HIV Epidemic in Brazil: Differential Distribution and Trends, XI International Conference on AIDS, Vancouver, 7/7-14, Abstract Tu.C.2619.

Ferreira, A., E. Arevalo, N. E. L. Fernandes, et al., 1992, HIV Infection among Users and Non Users of Injected Drugs, VIII International Conference on AIDS, Amsterdam, 7/19-24, Abstract PuC 8072.

Ferreira, J., M. C. Ramos, R. P. Loureiro, et al., 1993, First Brazilian HIV Infection Sentinel Surveillance among Sexually Transmitted Diseases Patients in Porto Alegre, Brazil, IX International Conference on AIDS, Berlin, 6/6-11, Poster PO-C29-3266.

Guimaraes, M. D. C., M. F. I. Costa, R. Carneiro, et al., 1988, Prevalence of HIV-1 Infection in a Heterosexual STD Clinic in Belo Horizonte, Brazil, IV International Conference on AIDS, Stockholm, 6/13-14, Abstract 4043.

Galvao-Castro, B., J. Ivo dos Santos, I. V. Santana, et al., 1990, Prevalence of HIV-1 Antibodies in Selected Groups of a Brazilian City with African Socio-Demographic Characteristics. ..., VI International Conference on AIDS, San Francisco, 6/20-24, Abstract F.C.579.

Granato, C. W. Johnson, C. Brites, et al., 1990. Retrovirus Infection in Prostitutes in Brazil, VI International Conference on AIDS. San Francisco, 6/20-24. Poster F.C. 581.

Guimaraes, M. D. C., M. P. Jackson, F. C. Bandeira, et al., 1991, Prevalence of HIV-1 in a Heterosexual STD Clinic in Belo Horizonte, Brazil, VII International Conference on AIDS, Florence, Italy, 6/16-21, Poster W.C.3102.

Gravato, N., R. M. V. Lacerda, P. J. Chequer, et al., 1998, Infection Vulnerability by HIV among Commercial Sex Workers in Santos - A Seroprevalence Study, 12th World AIDS Conference, Geneva, 6/28-7/3, Abstract 23591.

Inciardi, J.A., H. Surratt, P. Telles, et al., 1996, Risks for HIV-1 Infection and Seropositivity Rates among Cocaine Users in Rio de Janeiro, Brazil, XI International Conference on AIDS, Vancouver, 7/7-14, Session Th.C.425.

Joao, E. C., J. Menezes, O. Resende, et al., 1996, HIV Testing for Pregnant Women in a Public Maternity Hospital Located in Inner City Rio de Janeiro, Brazil, XI International Conference on AIDS, Vancouver, 7/7-14, Abstract Tu.C.2571.

Kritski, A., A. C. C. Carvalho, M. Schechter, et al., 1994, HIV-1, HTLV-1, and Tuberculosis among Intravenous Drug Users in Rio de Janeiro, Brazil, Tenth International Conference on AIDS, Yokohama, Japan, 8/7-12, Abstract P.C.0278. Leite, E. A., N. Hamerschlak, L. Szterling, et al., 1989, HIV Infection in I.V. Drug Abusers, V International Conference on AIDS, Montreal, 6/4-9, Abstract D. 709.

Lima, M. P. S., M. D. C. Rocha, P. R. Tanibata, et al., 1989, Profile of Users of the Drug IV in the Periphery of Campinas, V International Conference on AIDS, Montreal, 6/4-9, Abstract D. 604.

Lima, E. S., F. Bastos, S. R. Friedman, 1991, HIV-1 Epidemiology among IVDUs in Rio de Janeiro, Brazil, VII International Conference on AIDS, Florence, Italy, 6/16-21, Poster W.C.3287.

Longo, I., P. O. Flores, N. Mendes, et al., 1991, Seroprevalence of HIV-1 in Puerperal Women in Sao Paulo, Brazil, VII International Conference on AIDS, Florence, Italy, 6/16-21, Poster W.C.3224.

Lima, E. S., S. R. Friedman, F. I. Bastos, et al., 1993, Risk Factors for HIV-1 Seroprevalence in a Sample of Drug-Injectors from Rio de Janeiro, Brazil, IX International Conference on AIDS, Berlin, 6/6-11, Poster PO-C15-2916.

Loureiro, R., M. Balsan, M. Ramos, et al., 1994, Results of Three Consecutive Inquiries for HIV Infection Sentinel Surveillance among Sexually Transmitted Diseases Patients . .., Tenth International Conference on AIDS, Yokohama Japan. 87-12. Abstract P.C.0237.

Lurie, P., M. E. L. Fernandes, V. Hughes, et al., 1995, Socioeconomic Status and Risk of HIV-1, Syphilis and Hepatitis B Infection among Sex Workers in Sao Paulo State, Brazil, AIDS, vol. 9, suppl. 1, pp. S31-S37.

Lima, E. S., R. C. S. Azevedo, M. B. Manfrinatti, et al., 1996, Risk Behaviors for HIV-1 Seroprevalence in a Sample of Injecting Drug Users (IDUS) and Crack Smokers (CSS) in Campinas, Brazil, XI International Conference on AIDS, Vancouver, 7/7-14, Abstract Pub. C.1133.

Lacerda, R., N. Gravato, W. McFarland, et al., 1997, Truck Drivers in Brazil: Prevalence of HIV and Other Sexually Transmitted Diseases, Risk Behavior and Potential for Spread . .., AIDS, vol. 11, suppl 1, S15-S19.

Martins, T. A., T. R. B. Queiroz, N. Broutet, et al., 1998, Profile of the Women with Aids and the Women Consulted at Sexually Transmitted Diseases (STD) Clinics in Fortalez, Ceara . . ., 12th World AIDS Conference, Geneva, 6/28 - 7/3, Abstract 23498.

Ministry of Health, 1997, AIDS Cases and HIV Prevalence Data Tables, Ministerio de Saude, SPES, Coordenacao National de DST e Aids, tables

Ministry of Health, 1997, AIDS Cases and HIV Prevalence Data Tables, Ministerio de Saude, SPES, Coordenacao National de DST e Aids, tables

Peixinho, Z. F., N. F. Mendes, A. S. D. Nunes, et al., 1987, HIV Antibodies in Blood Bank Donors, Hemophiliacs, Homosexual Men, Prostitutes, and Hemodialysis Patients in Brazil, III International Conference on AIDS, Washington, D.C., 6/1-5, Abstract THP.85.

Peixinho, Z. F., N. F. Mendes, I. M. Longo, et al., 1990, Seroepidemiological Studies of HIV-1 Infection in Large Brailian Cities, Nat Immun Cell Growth Regul, vol. 9, pp. 133-136

Ribeiro, T. T., C. Brites, E. D. Moreira, et al., 1993, Serologic Validation of HIV Infection in a Tropical Area, Journal of Acquired Immune Deficiency Syndromes, vol. 6, no. 3, pp. 319-322.

Rodrigues, L., L. Lauria, O. Berro, et al., 1994, HIV Serosurveillance in Brazil: A New Epidemic Emerges, Tenth International Conference on AIDS, Yokohama, Japan, 8/7-12, Session 072C.

Rangel, A., P. R. Telles, F. I. Bastos, et al., 1996, HIV Risk in IDU's in Rio de Janeiro: Psychological Predictors and Implications for Intervention, XI International Conference on AIDS, Vancouver, 777-14, Poster Tu.C.2495.

Reis Barbosa, M. A., J. C. F. Favero, N. A. G. Grilo, et al., 1998, Assessment of the Programme of Serological Assistance to Pregnant Women (PASG) and the Programme of Assistance to . .., 12th World AIDS Conference, Geneva, 6/28-7/3, Abstract 23289.

Santos, C., E. Sampaio, I. Santana, et al., 1994, Evidence for Sexual Transmission of HTLVI/II in Brazil, Tenth International Conference on AIDS, Yokohama, Japan, 8/7-12, Abstract P.C.0600

Sole Pla, M., E. P. Quinhoes, K. Valente, et al., 1994, Surveillance System for HIV Infection in Rio de Janeiro, Brazil, Tenth International Conference on AIDS, Yokohama, Japan, 8/7-12, Abstract P.C.0563.

Souza, E. S., F. S. Figueira, G. A. Silva, et al., 1995, Seroprevalence of HIV-1 among Pregnant Women at Recife, Northeastern Brazil, Journal of Acquired Immune Deficiency Syndromes and Human Retrovirology, vol. 10, no. 4, pp. 486-487.

Sole Pla, M. A., K. R. Sanches, A. H. Matida, et al., 1996, HIV1 Infection Surveillance among STD Patients in Rio de Janeiro, Brazil, XI International Conference on AIDS, Vancouver, 7/7-14, Abstract Pub.C.1158.

Silva, J. L., I. Silva Carvalho, E. A. C. Ruiz, et al., 1998, Syphilis, Hepatitis and HIV Prevalence among Low Income Female Sex Workers in the City of Sao Paulo, Brazil, 12th World AIDS Conference, Geneva, 6/28 - 7/3, Poster 23554.

Tondo, M., C. M. Cruz, P. McGreevy, et al., 1991, Three Year Study of Female Prostitutes in a Rural Area in Brazil, VII International Conference on AIDS, Florence, Italy, 6/16-21, Poster M.C.3074. Telles, P. R., F. Bastos, E. Lima, et al., 1992, HIV-1 Epidemiology among IDUs In Rio de Janeiro, Brazil, VIII International Conference on AIDS, Amsterdam, 7/19-24, Poster PoC 4265.

Tupinambas, U., M. Jeronymo, E. Oliveira, et al., 1994, Prevalence and Risk Factors among Professional Sex Workers in B. Horizonte, Brazil, Tenth International Conference on AIDS, Yokohama, Japan, 8/7-12, Poster P.C.0356.

Telles, P. R., F. L. Bastos, M. Morgado, et al., 1998, Projeto Brasil-Rio De Janeiro, Preventing HIV and Assessing Risk Behaviors among Injecting Drug Users (IDU's), 12th World AIDS Conference, Geneva, 6/28-7/3, Poster 23208.

Veloso, V. G., J. H. Pilotto, R. Azambuja, et al., 1998, High Prevalence of HIV Infection in Low Income Pregnant Women in Rio de Janeiro - Brazil, 12th World AIDS Conference, Geneva, 6/28 - 7/3, Abstract 60913.

Werneck, E. B., A. C. C. Carvalho, A. Kritski, et al., 1992, Prevalence of Retroviral Infections in Intravenous Drug Users in Rio de Janeiro, Brazil, VIII International Conference on AIDS, Amsterdam, 7/19-24, Abstract PoC 4386.

Websites:

National AIDS Programme: www.aids.gov.br

12 - Brazil

Annex: HIV Surveillance data by site

Group	Area		1984 19	85 1	986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998 1999
Pregnant women	Major Urban Areas	Belem									0		0.2				
		Belo Horizonte											0				
		Itajai									2.2		1.3				
		Joinville Para												8.0			
		Porto Alegre											2.6	2.3			
		Recife									0.1	0.1	0.7	0.3			
		Rio de Jainero									0.3		0.3	2.7	2.6		
		Santos						3.7	4.0		0.5		•				
		Sao Paulo Uberaba							1.2		0.5		0	0.7	0.6		
		Fortaleza										0.3			0.0		
		Salvador, Bahia													0.7		
Pregnant women	Outside Major Urban	Guaruja														8.0	
	Areas	Five areas														1	
Group	Area		1984 19	85 1	986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998 1999
Sex workers	Major Urban Areas	Belo Horizonte											6.3				
		Campinas					10.8			9.5							
		Rio de Janeiro Santos				4.5 3		3 3		14		11.2			8.3		
		Sao Paulo			0	3		3		8					0.5	17.8	
		Fortaleza											1.6				
		Presidente				0		2									
		Prudente Minas Gerais				0			0								
		Paranagua				U			U		4.6						
Sex workers	Outside Major Urban																
0	Areas		1001 10	05 4	000	4007	1000	4000	1000	1001	1000	4000	4004	4005	1000	4007	1000 1000
Group Injecting drug users	Area Major Urban Areas	Campinas	1984 19	85 1	986	1987	1988	1989	1990	1991	1992	1993	1994	1995 35	1996	1997	1998 1999
ang cost	Major Orban Arcas	Rio de Janeiro			4									00			
		state															
		Rio de Janeiro (1)							33		31.3			14.4	29		28
		Rio de Janeiro									33						
		(2)															
		Santos									76.5			71.8 35			
		Campinas Sao Paulo (1)						53.1		23				33			
		Sao Paulo (2)						48.4									
Injecting drug users	Outside Major Urban																
Group	Areas Area		1984 19	85 1	986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998 1999
STI patients	National	Porto Alegre										5.4	6.6	6.7			
		Rio de Janeiro									22.7		22.7	18			
		Sao Paulo									15.3						
		Sao Paulo (Males)										15.3	16.1				
		Sao Paulo										1.1	8.6				
		(Females) Rio de Janeiro												5.2			
		(Females)												5.2			
		Fortaleza													1.4		
		(Females) Belo Horizonte		0	0			0			2.3	2.3	3.5	3.3			
		Salvador		J	J			0.6	3.4		9.3	9.4	3.3	5.5	1		
		Brasilia									2.9	2.4		2.4			
		Aracuja									1.3	2	0.9				
		Belem									5.2	3.3					
		Campo Grande Porto Alegre									2.4 4.8		2.2	2.5			
		(Males)									4.0						
		Fortaleza										1			1.9		
		Cuiaba Corumba										1.1	4.7				
		Corumba Kubenkroke											1.7 0				
		Santos											12.5				
		Chapeco												0.3			
		Juiz de Fora												6.5			
STI Patients	Major Urban Areas		1004	05 4	000	1007	1000	1000	1000	1004	1000	1002	1004	1005	1000	1007	1000 4000
Group Blood Donors	Area National		1984 19	იე 1	986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998 1999
Blood Donors	Major Urban Areas																
Group	Area		1984 19	85 1	986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998 1999
Men having sex with men	National																